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George James Symons, F.R.S.

LONDON, 6TH AUGUST, 1838—10TH MARCH, 1900.

THE Founder of the British Rainfall Organization and of this Magazine has passed away after a life, long in good work, though short of the allotted threescore years and ten.

In 1857 he started an organization for observing and recording thunderstorms, and soon after began the great work of his life in connection with British Rainfall. The first published volume contained the records for the year 1860, while the fortieth will be issued within a few months of his death. With 1866 he commenced the publication of the *Meteorological Magazine*, and this is the first number which has contained no article written by him.

For forty-four years he was a Fellow of the Royal Meteorological Society, and for twenty-seven years was its Honorary Secretary, except during three years when he occupied the presidential chair, to which he had this year been again elected as being best fitted to support the Society in the celebration of its jubilee. For forty-two years he supplied monthly records of meteorological observations to the Registrar-General; for forty years he was a member of the General Committee of the British Association, and served on many Committees; and for nearly forty years he was a member of the Scottish Meteorological Society. For twenty-seven years he was a member of the Société Météorologique de France, and served three times on the Council.

There is no need here to enlarge upon his work, but in illustration of his widespread activity may be mentioned "Notes on the Solar Eclipse of July 18th, 1860," "Meteorological Statistics and Bibliography of the Colonial Empire," "Inquiry into the Temperature of the Thermal Springs of the Pyrenees," "The Floating Island in Derwentwater," "The Lightning Rod Conference," "The Eruption of Krakatoa," and "Cowe's and Merle's Meteorological Registers," besides his great contributions to the bibliography of meteorology.

The honours of work fell to his share more than those of mere compliment, and he was elected president of innumerable congresses and committees at home and abroad, and Juror at meteorological exhibitions both in England and on the Continent. He received

a Telford premium of the Institution of Civil Engineers in 1876; in 1878 was elected a Fellow of the Royal Society, was created a Chevalier de la Légion d'Honneur in 1891, and was selected by the Prince of Wales to receive the Albert Medal of the Society of Arts for 1897.

His great kindness and genial personality were known almost the world over, and among his innumerable colleagues on the Councils of the Royal Society, the Royal Meteorological Society, the British Association, the Société Mét. de France, the Royal Botanic Society, the Sanitary Institute, and on numerous other bodies, he is not known to have made a single enemy. The great majority will sincerely mourn his loss as that of a true friend, and will be able in some measure to appreciate what it must be to the writer of this brief memoir who has worked with him daily and hourly for nearly thirty years, and who is proud to have been selected by him as his successor in the work.

H. SOWERBY WALLIS.

THE SNOW AND FLOODS OF FEBRUARY, 1900.

THE disorganization of ordinary means of traffic and communication, not to mention the inconvenience, suffering and serious danger to health caused by the snow and floods of February, have been so great and general over vast areas of the United Kingdoms, that we feel called upon to devote a very considerable amount of space to their description.

Nature in the distribution of her favours was singularly impartial, for the dwellers on high land were isolated by the snow and drifts, which later on flooded out the dwellers by the streams and rivers, while even those at intermediate heights did not escape, for they suffered the trials of utterly disorganized railway systems and a perhaps unprecedented breakdown of the telegraphic and telephonic services.

Dwellers in the S.W. counties generally liken their experiences to the time of the blizzard in the west on March 9th, 1891, while in other parts of the country reference is made to the great snowstorms of January, 1881, and although the depth of snow and the resultant damage was far greater on those historic occasions, most reports agree that the havoc of 1900 has been unequalled at any other time. Dwellers in the Thames Valley compare with the great flood of 1894, and again 1900, to some extent, sinks into insignificance. In short the scientist is perhaps most charmed with the way in which Nature arranged a maximum display of damage with something like a minimum of material. The ground was first frozen that no water might soak in, dry snow fell, not in unprecedented quantity, and by a gale of only normal force, was heaped up into great drifts, which, perhaps exhibit man's impotence better than anything else. Snow of the right temperature to adhere to telegraph wires was provided in sufficient quantity to break them down by its weight, and finally

rain, heavy, but again not unprecedented, carried the accumulations off the frozen ground almost as from the roof of a house.

We have prepared a table giving various details of the rainfall of February, in addition to the *Regular* Table which appears every month, and reference to them will show that, as regards the max. fall on any day, there is nothing exceptional far less unprecedented, again, the total fall for the wet fortnight, from 13th to 26th, though large, does not reach a phenomenal figure except in special cases and in this connection the most striking column is that giving the number of consecutive wet days, which speaking generally is very exceptional.

To speak of the snow is very difficult, for the rainfall observer was as much baffled as the railway and telegraph engineer, and it would be almost hopeless to attempt to summarize the descriptions received from rainfall observers, and taken from the newspaper press. In selecting the latter we have, as far as possible, taken definite statements only, and are satisfied that, though there is occasional exaggeration, the great majority are as near as possible to the truth.

When we turn to the total rainfall for the month, we have values which for February are very remarkable, but which have, we believe, in nearly every instance been equalled in a wet October, November or December.

Over the country included between lines running from Hereford to the Wash and from Bristol to Brighton the fall was more than double the February average of the 10 years, 1880-89; at Newport, Essex, reached 307 per cent.; at Castle Ashby, Northampton, 275 per cent.; at Llanfrechfa Grange, Monmouth, and Upfield Stroud, Gloucester, 266 per cent.; at Cookham Vicarage, Berks, 259 per cent; and at Clifton, Bristol, 252 per cent. In the S.W. counties the excess was rather less, but was generally more than 75 per cent. In South Wales the excess was slight, and in North Wales generally disappeared, but Llandudno recorded twice the average.

Another large area with more than twice the average fall, stretches from Newcastle through Yorkshire, Notts and Lincoln, joining the before described area at the Wash. The most exceptional values are 424 per cent. at East Layton, Yorks; 388 per cent. at Newcastle; 365 per cent. at Ribston, Wetherby, Yorks; and 304 per cent. at Thorp Perrow, Bedale, Yorks. East and west of this belt the fall was less, and as a whole, was, we believe, rather less than 50 per cent. above the average.

Over Scotland and Ireland the total fall varied from moderate excess to moderate deficiency, but nowhere was it sufficiently remarkable to call for special notice.

We cannot do better than leave the description of the floods to the rainfall observers and to the press; but generally speaking they were far from unprecedented. Perhaps the most striking effect was the destruction of the bridge at Guildford; and the flood there was very exceptional—but whether the bridge would have withstood the flood if the timber stacks had not existed we cannot say.

FEBRUARY, 1900.

Additional Rainfall Records.

Div.	STATIONS.	Total Rainfall.	Max. Fall.		Diff. from Aver		No. of consecutive Wet Days.	Total Rainfall, 13—26.
			Amount	Date.	Amount	Per cent.		
		in.	in.		in.			in.
I.	Muswell Hill	4·16	·83	2	+2·05	97	16	2·62
II.	Reigate, Woodhatch Lodge	4·46	·73	15	+2·20	97	15	3·23
,,	Red Hill, Oxford Road	4·85	·86	15	+2·43	100	16	3·46
,,	Seven Oaks, Riverhead Vic.	3·86	·52	15	+1·60	71	11	2·98
,,	Steyning	6·17	·71	15	+3·41	123	15	4·54
,,	West Dean	4·84	1·19	15	+2·06	74	16	3·85
,,	Alton, Ashdell	6·34	1·65	15	+3·55	128	16	5·31
,,	Newbury, Welford Park	4·83	1·10	15	+2·17	81	16	3·66
,,	Maidenhead, Cookham Vic.	4·65	...	...	+2·86	159	...	...
III.	Broxbourne	4·03	·72	2	+2·06	104	10	2·65
,,	Kensworth [Dunstable]	4·51	·96	15	+2·38	111	7	3·36
,,	Slough, Upton	3·57	·65	2	+1·49	72	16	2·72
,,	Oxford, Magdalen Coll. Lab.	4·49	1·04	13	+2·41	115	11	3·42
,,	Banbury, Bloxham Grove	4·52	1·10	15	+2·26	100	10	3·75
,,	Castle Ashby	4·97	·77	15	+3·16	175	16	3·66
,,	Northampton, Sedgebrook	4·75	·87	15	+2·76	138	7	3·39
,,	Wisbech, Bank House	3·70	·60	3	+2·06	126	7	2·73
IV.	Saffron Walden, Newport	5·53	1·60	13	+3·73	207	16	3·55
,,	Ipswich, Bishop's Hill	3·10	...	...	+1·53	98	...	...
,,	Rendlesham Hall	3·74	·76	24	+2·19	141	6	3·01
,,	Swaffham	3·83	·81	15	+2·12	123	7	3·15
V.	Alderbury	4·65	1·17	15	+2·16	87	16	3·58
,,	Bishops Cannings	4·70	·75	15	+2·38	102	16	3·86
,,	New Swindon	4·82	·70	15	+2·57	114	16	3·85
,,	Blandford, Whatcombe	6·16	1·34	15	+2·81	84	16	4·81
,,	Holne Vicarage	8·36	1·52	15	+1·60	24	16	7·88
,,	Ashburton, Druid	11·07	2·44	15	+5·73	107	16	10·56
,,	Okehampton, Oaklands	7·66	1·02	15	+3·51	85	16	6·25
,,	Barnstaple Athenæum	5·85	·94	15	+2·79	91	16	5·21
,,	Lynmouth, Glenthorne	8·36	1·43	16	+4·42	112	7	7·73
,,	Probus, Lamellyn	6·47	1·50	14	+2·60	67	15	5·98
VI.	Clifton, Pembroke Road	6·40	1·00	13	+3·86	152	16	5·59
,,	Great Barrington	5·48	1·21	13	+2·72	98	15	4·52
,,	Cheltenham, Southam Villa	5·91	1·41	15	+3·39	134	16	5·14
,,	Ross, The Graig	6·42	1·26	15	+3·76	141	16	5·52
,,	Cheadle, The Heath House	3·84	·60	10	+1·60	71	15	3·07
,,	Coventry, Priory Row	4·32	·56	19	+2·10	94	15	3·76
VII.	Hodsock Priory	3·94	·97	15	+2·22	129	6	3·29
VIII.	Neston, Hinderton	3·60	·89	15	+1·95	118	10	2·94
,,	Southport, Hesketh Park	3·00	·56	26	+ ·76	34	6	2·52
IX.	Ripon, Mickley	4·57	1·10	26	+2·26	97	5	3·62
,,	Bedale, Thorp Perrow	5·63	1·25	26	+3·78	204	6	4·13
,,	East Layton	6·71	1·49	27	+5·13	324	3	3·91
,,	Mickleton	3·78	1·00	26	+1·25	49	8	2·98
,,	Limekiln Pasture	3·85	...	...	+1·31	52	..	...
X.	Unthank Hall	4·51	·75	15, 26	+2·33	106	4	3·58
,,	Keswick, The Bank	6·54	2·55	15	+ ·88	16	10	5·42
XI.	Llanfrechfa Grange	9·31	1·25	18	+5·81	166	16	8·42
,,	Llandovery	4·80	1·00	15	+ ·76	19	16	4·30
,,	Castle Malgwyn	6·88	1·65	15	+2·28	50	10	5·60
,,	Llandefaelog-fach Rectory	5·07	1·36	15	+1·30	35	16	4·32

MUSWELL HILL.—The R, 4·16 in., exceeds that of any other February since the gauge was started in January, 1872; February, 1881, with 4·03 in., having been the wettest hitherto. The 4·16 in. exceeds the average of 28 years by 2·35 in., or 130 per cent. There were heavy falls of S on 2nd (·83 in.), 10th (·46 in.) and 13th (·53 in.). R or S was recorded every day from 13th to 28th, amounting to 2·84 in. *S. Abethell.*

FINCHLEY, ETCHINGHAM PARK.—The wettest February since the gauge was started at the beginning of 1886, 3·12 in. in 1891 being the largest previously recorded. The total, 4·68 in., is 3·33 in. more than (or nearly 3½ times) the average of 14 years. There were heavy falls of S, on 3rd being 8 in. deep and yielding ·83 in.; 3½ in. deep on 10th, yielding ·44 in.; and on 13th 5½ in. deep, yielding ·76 in., making altogether 2·03 in. R or S was recorded on every one of the last 16 days, amounting to 3·37 in. *J. W. Scott.*

CHIDDINGFOLD, BEACONSCROFT.—On the 10th the R was ·74 in., 13th ·41 in., 14th ·17 in., 15th 1·45 in. = 2·77 in. On the evening of 14th a thaw set in, followed by a freezing night and thaw in morning, and this with the heavy R of the next day melted the S which had fallen early in the month, and caused a sudden flood. Here the flood was, I think, the highest remembered by the oldest inhabitant; it was bottled up above the bridges, but no damage was done. *J. P. Maclear.*

RED HILL, OXFORD ROAD.—The greatest fall in February recorded during 34 years. R 2·78 in., and rainy days 8, above the average. S on 5 days. *W. H. Tyndall.*

WALLINGTON.—Exceedingly wet; R 2·93 in. above the average, and the greatest on record. The R for the two months of this year is nearly one-third of the annual mean. S on 10th, 13th and 14th, that on 10th being 5 in. deep at 11 p m. S on the ground from 2nd to 15th inclusive. *F. Campbell Bayard.*

TENTERDEN.—A wonderful February, and adding 4 days of January to 27 of February to make an average month, makes up 6·32 in. of R, equal to some of the wet autumn and winter months of the past. *J. Ellis Mace.*

ACRISE, SCHOOL HOUSE.—R 7·23 in., the greatest in February in 30 years, and 4·70 in. above the average. The fall of the three winter months, December to February, 16·02 in., has only once been exceeded in the same time, namely, in 1876–77. *G. C. Woollett.*

CROWBOROUGH.—S on 1st, S or sleet all day on 2nd (8 in.), S on 5th, 10th (heavy), 13th (5 in.) and 14th. The month was remarkable for heavy rainfall, the total, 6·73 in., being the greatest in 29 years. *J. T. S. Driberg.*

WEST DEAN.—A very stormy and excessively wet month, with intense cold till the 15th. A blizzard prevailed on 13th and 14th, the S drifting to a great depth and stopping all traffic on the roads. This was followed by very heavy R. S on 7 days, it lying 3 ft. deep in places on 18th. *E. Wells.*

MAIDENHEAD, COOKHAM VIC.—R 4·65 in. on 17 days. Flooded fields, &c., since 16th and 17th, and all sluices open since the night of 15th. Greatest height above the normal level 4 ft. 6½ in., but that normal level is here about 4 ft. above the natural level.

R. W. Rogers.

KENSWORTH [DUNSTABLE].—The heaviest rainfall recorded in any February, the nearest being 4·32 in. in 1883. The springs are rising rapidly. S on 2nd, 3rd, 10th, 13th, 14th, 16th and 17th.

S. Grace Jones.

SLOUGH, UPTON.—Floods began to rise in this district on February 16th, culminated at 7 a.m. on 22nd, and have been steadily subsiding since, but a considerable body of water was still out on March 1st. The depth of S was on 2nd 6½ in., on 10th 2½ in., and on 13th 4 in. *R. Bentley.*

WENDOVER, HALTON GARDENS.—S 9½ in. deep on 2nd, 2½ in. on 11th, 3 in. on 13th, and 7 in. on 14th. *R. C. Sanders*

WINSLOW, ADDINGTON MANOR.—We had a very heavy S storm at night on 13th, just about 9 in. deep on the level. The surface of the S next morning was all dotted over with large balls of S from 6 to 12 in. in diameter. I saw lots of them in course of formation just rolled along by the force of the wind. They have a very singular appearance on the smooth surface of the S. Measured as R I have only ·58 in., whereas the fall of S on 2nd gave ·75 in., when there was only 7 in., but it was much damper and heavier.

J. Mathison.

GORING-ON-THAMES, ELMCROFT.—The S on 2nd and 3rd was very heavy; it fell in still air, and I was able to measure it as almost uniform in depth over a very large area. The two days together gave 1·19 in. The floods on 22nd were the second highest in 12 years. *E. Gambier Parry.*

ABINGDON, CULHAM.—Very cold from 7th to 14th, with two heavy falls of S. The wettest February since 1883. High floods in the Thames; very high from 18th to 21st. S on 7 days.

F. C. Clutterbuck.

OXFORD, ST. GILES'.—A notable month. The heaviest S since 1888 in February, and I think in any month. Six and a half in. of S at 9 a.m. on 3rd, and still snowing. Eight in. at 9 a.m. on 14th. By far the wettest February I have any record of. The floods are the heaviest since 1894. *E. M. Tawney.*

SWERFORD.—On Saturday, 3rd, the S was 8 in. deep, and the ground was still covered on 9th. S began to fall at 4.30 p.m. on Tuesday, 13th, and reached an average depth of about 10 in. by the morning. Owing to drifts, some of the roads were impassable. S and R fell heavily all day yesterday (15th), and registered this morning 1·49 in. *W. Hall.*

BANBURY, WEST BAR.—The fields on the morning of the 14th were strewn with cones and balls of S varying in size from an ordinary snowball to that of a man's head, and at times attaining

the size of a small barrel. Enquiries made of residents in the neighbourhood show that there was no variation in the conditions of drift over an area stretching from the Avon Dasset Hills in the N. to Charlbury and Woodstock in the S. The storm was accompanied by a high wind, and I think by a falling temperature on the morning of the 14th. One observer quotes 4° of frost only in the early morning, hence it may be that the substratum of S was harder than the upper 2 in. The wind was from N.W., varying a point or two towards N., judging by the S tracks. Each ball was preceded by its track or slide, and though the tracks were from 12 to 20 ft. in normal length, slides were to be seen of nearly 40 ft. in length. They were all curved—"comet-form" describes them best. The banded or cycloidal structure of the ball shewed clearly the way in which it was formed. *E. A. Walford.*

GRIMSBURY [BANBURY].—On the night of the 13th we had heavy S with a fresh gale from E. and N.E. Next morning the fields were covered with lumps of S, many 15 in. long and 9 in. in diameter, and the ends like a roll of paper. The wind evidently took small pieces, rolling them up until they got too heavy to move. I have lived here nearly 50 years and have never seen it before. The water from S caught in the rain-gauge gave ·73 in. S drifts in places are heavy. *A. B. Field.*

COLCHESTER, HILL HOUSE, LEXDEN.—Typical as regards "fill dyke," and floods have been out a good deal in this neighbourhood. Springs and ponds filling up. *S. F. Hurnard.*

BISHOPS CANNINGS.—R 2·47 in., and rainy days 7, above the average. S $2\frac{3}{4}$ in. deep on 2nd, and 2 in. on 10th. The depth could not be measured on 13th owing to drifts. *C. W. Hony.*

ASHBURTON, DRUID HOUSE.—S on 2nd, 3rd, 10th and 13th. Great and very destructive floods on 15th, caused by 4·87 in. of R on 13th, 14th and 15th. *Fabyan Amery.*

TAVISTOCK, STATSFORD, WHITCHURCH.—Rainfall more than double the mean; in 16 days, from 13th to 28th, 8·66 in. fell; in the 7 days ending 19th, 5·13 in. fell; and in the 13 days ending 25th, 8·50 in. fell. In the 15 hours ending at 4 p.m., on 15th, 2·74 in. fell, and in the 20 hours ending 9.20 p.m., 2·97 in., causing (with the melting S) high floods in the rivers Tavy and Walkham. S on 8 days. *E. E. Glyde.*

OKEHAMPTON, OAKLANDS.—A heavy storm of S on 13th, and an extraordinarily rapid thaw on 15th, flooding the river to a great height. *W. H. Holley.*

WELLINGTON, THE AVENUE.—During the latter half there were excessive R and heavy gales. The last 16 days had S or R on each. R about 1·25 in. above the normal. S on 1st, 2nd, 3rd, 10th, and heavy on 13th. *F. J. Burnett.*

NORTH CADBURY RECTORY.—February 2nd, S with N.E. wind, from the small hours till nearly midnight. It would have lain, possibly, 3 in. deep, if none had melted. That in the gauge pro-

duced ·19 in., but this being clearly under the truth I have put down ·27 in. February 10th, thaw began at 11 a.m.; S at 12.30, with strong wind till about 3 p.m., when it gradually turned to R (wind dropping), which lasted till 7 p.m. Sky then cleared, but S again at dawn on 11th, lasting till 8.45 a.m. The gauge yielded ·36 in., of which quite ·25 in. must have been R; again evidently below the truth, so ·40 in. was adopted. February 13th, S, with E. wind, began at 2.30 p.m., and continued driving and drifting till about 7 p.m., when it turned to sleet. There had been a thaw in the morning, then as the S came on it froze, and about 9.30 p.m. it thawed again for a short time. It then froze again, forming an ice crust over the S. Later another 1½ in. of S fell. Next morning there was an average depth of 3 or 4 inches, with the ice crust in the middle. The S was very dense. The gauge yielded ·42 in.; I have adopted ·50 in. February 15th, the wind rose in the very early morning, and R followed; by 9 a.m. there was almost a gale from S.E., and ·48 in. of small driving R had fallen. The R kept on, with high wind, all day; by 6 p.m. another ·75 in. had fallen. But little fell after that, till in the small hours a shower fell making ·88 in. to be measured next morning. Roughly speaking 1·75 in. of R fell in 18 hours, on ·50 in. of S upon frozen ground. The flood that followed was the biggest by far that I have seen since my first coming, and in the Somerset lowlands must have been very bad indeed. *H. A. Boys.*

CLIFTON, PEMBROKE ROAD.—By far the heaviest rainfall for February for 45 years, the nearest approach being 4·94 in. in 1876. The aggregate of 6 inches on 16 consecutive days is very unusual, though not quite unprecedented. About 2 inches of S on 2nd, and 9 inches on 13th. *R. F. Sturge.*

CIRENCESTER, DOLLARWOOD.—Very heavy daily R continued to the 20th, and with the rapidly melting S will cause serious floods down the Thames. I have in 15 years never known the hill brooks so swollen. *C. P. Hooker.*

CIRENCESTER, FURTHER BARTON.—Excessively wet. The blizzard of the afternoon and night of the 13th and 14th will be long remembered; almost all the roads were blocked. The heavy R which followed caused severe floods. Three inches of S on 2nd, and S on four other days. *J. E. A. Brown.*

CHELTENHAM, SOUTHAM VILLA.—S on 1st, 2nd, 3rd, 9th, 10th and 13th, that on 13th being the heaviest since January, 1881. In the afternoon S, very fine, began to fall, and by evening there was a regular blizzard, the fine S penetrating everywhere. On the morning of the 14th it was 9 in. deep on the level, and yielded ·70 in. of water. The week ending 19th was almost a record week for R, the total being 4·05 in. At 4 p.m. on the 19th the barometer reading was 28·438 in. (corr. and red.) *R. Tyrer.*

ROSS, THE GRAIG.—Rainfall three times the average, and larger by far than in any year since 1833, which had a record of 6·86 in.

Six in. fell in 15 days, an amount reached only once or twice in my experience. The excessive R caused many landslips in the neighbourhood, but the River Wye has been unusually little affected. S on 2nd and 3rd, 1 in. to 2 in. deep. On Thursday (13th) S began at 4 p.m. and lasted for three hours; on Wednesday morning I registered ·76 in. The depth outside my house was 8½ in., but generally I think it was not much above 6 in. except in drifts. *H. Southall.*

WOLVERHAMPTON, TETTENHALL.—The wettest February in 27 years, being 2·04 in. above the average. S on 10 days. *R. T. Smith.*

COVENTRY, PRIORY ROW.—Great rains and floods. S all day on 3rd, and 2 or 3 inches on 13th; Great floods on 16th. *J Gulson.*

COVENTRY, KINGSWOOD.—The enormous rainfall produced enormous floods in the district. S on 4 days. *R. B. Caldicott.*

WORKSOP, HODSOCK PRIORY.—The wettest February for at least 25 years. S on 7 days, *H. Mellish.*

BOLTON, THE PARK.—The amount of R and S has not been exceeded in February since 1894, when 5·55 in. fell. There has not been such a heavy fall of S as that of 10th for 19 years. R or S fell on 19 days, amounting to 3·78 in., or 1·28 in. above the average. *W. W. Midgley.*

BROUGHTON-IN-FURNESS.—The first half was cold, with S on the ground. The latter half was milder, the S soon disappearing and a good deal of heavy R falling. S on 1st, 7th, 9th (12 in.), 10th, 12th, and a fearful blizzard on 15th. *C. P. Chambers.*

DUDDON VALLEY, SEATHWAITE VIC.—The most wintry month of the season, with a snowfall heavier than has been known for years. S on 8 days. *S. R. M. Walker.*

MELTHAM, HAREWOOD LODGE.—It commenced to snow about midday on Saturday, 10th; by 11 p.m. between 8 and 9 inches had fallen, and by 9 a.m. on 11th the total depth was 14 in., of which somewhat less than an inch belonged to a previous fall; the yield of water for the first 8½ in. was ·54 in., but for the total fall I have not been able to get a very accurate figure, owing to the gauge being buried in the morning; by inverting a cylinder and melting the contents I got 1·04 in. for 14 in., of which about 1 in. was hard old S. I therefore decided to adopt ·95 in. as the yield for 13 in. I have only two instances in my record of nearly 20 years to compare with this—*viz.*, January 29th, 1882, when I recorded the fall as between 12 in. and 14 in., and December 6th, 1882, on which day there fell about 16 in. There are drifts on the high ground exceeding 6 ft., and on Sunday about noon the S could be seen blowing off the moors in clouds at least two miles away. On 15th S began to fall at about 8.45 a.m., and continued for 8½ hours; for this time the gauge gave 1·02 in. of water, and a cylinder placed close beside it gave ·97 in., notwithstanding the S was so wet that it did not lie more than 3 in. deep on the top of the old S, ascertained by careful measurement. During this time the wind blew very strongly from S.E. and S.S.E., and in exposed places amounted to a full gale. After 5.15 p.m. the

wind veered to S.S.W., the S ceased, and scarcely any R fell between that time and 9 a.m. on 16th. From 9 a.m. to 9 p.m. the bar. fell from 29·791 in. to 28·902 in., or 0·889 in. in 12 hours, and at 11 p.m. (the lowest) was 28·820 in. *C. L. Brook.*

GOLDSBOROUGH HALL.—Heavy falls of S on 10th (from 12 to 13 in.) and 15th. On 26th 1·17 in. of R fell. *R. Goodall.*

RIPON, MICKLEY.—Very heavy falls of S, about 18 in. deep from 10th to 15th. *E. E. Harrison.*

BALDERSBY.—S 12 in. deep from 10th to 16th. *W. Gregson.*

EAST LAYTON.—A blizzard of unusual severity raged the whole of the 15th, roads were blocked in all directions, and other damage was done. *E. O. Proud.*

HALTWHISTLE, UNTHANK HALL.—Violent S storms, with wind and heavy drifts from 8th to 22nd. Snowed up from 11th to 15th. *D. Dixon Brown.*

MELMERBY.—S drifts prevented the record from being taken from 8th to 10th. *W. Y. Craig.*

MONMOUTH, SCHOOL HOUSE.—R measured on February 15th, at 9 a.m., ·75 in.; at 3 p.m., 2·10 in.; at 5 p.m., ·33. Total, 3·18 in. S fall on Monday night (12th) about 9 or 10 in., yielding 1·00 in. *E. H. Culley.*

RHIWBRYFDIR.—S 8 in. deep on 9th, and 10 in. deep on 11th. S storms on 12th, 13th and 14th. *R. Roberts.*

LLANBERIS, GLYN PADARN.—Nine inches of S on 9th, 5 in. on 10th, and 2 in. on 13th. *F. Muckleton Allen.*

PENMYNYDD VICARAGE.—On Friday, the 9th inst., there was a very heavy fall of S in the afternoon, from 5 to 6 in. falling in about two hours. On Saturday, the 10th, there was more S, and I was told that the depth was again quite 6 in. *H. D. Owen.*

MONIAIVE, MAXWELTON HOUSE.—Seven in. of S fell on 8th, 3 in. on 9th, and 1 in. on 15th, followed by heavy R. *E. Laurie.*

LILLIESLEAF, RIDDELL.—One of the most disagreeable months ever experienced. S storms were many and heavy, and roads were often blocked for days. The great storm of 15th destroyed all telegraphic and much railway and road communication for days. This was the heaviest storm and highest wind I can recollect for 60 years; it came on at 11 a.m. and lasted till midnight; at its height the wind was travelling at 45 miles an hour (5.40 p.m.) On 19th S fell again very heavily and we were again blocked up. On 24th when the thaw came it was followed by the highest flood for many years. R 2·18 in. above the average. S on 12 days. *J. Sprot.*

ISLAY, EALLABUS.—The heaviest S storm for 5 years occurred on 9th and 10th. *J. Laughton.*

BALQUHIDDER, STRONVAR.—S 3 in. deep on 8th, 2 in. on 12th, 9 in. on 15th, 1½ in. on 19th and 1½ in. on 21st. *J. Dickson.*

COUPAR ANGUS STATION.—Sixteen days R or S. Total 3·57 in or 1·62 in. above the average. On 15th there was a very severe storm of sleet and S, whereby the telegraph wires were cased with ice, the

wires having the appearance of ropes about two inches in diameter, and causing destruction never before experienced. *J. Robertson.*

KEITH H.R.S.—Heavy S storms from 1st to 13th. *J. Lyon.*

DUNMANWAY, COOLKELURE.—A very heavy fall of S took place during the night of 8th, 12 to 13 in. falling and remaining on the ground for several days. *E. A. Shuldham.*

CORK, WELLESLEY TERRACE.—An unusual amount of S; that of the 8th and 9th was the greatest since February 18th and 19th, 1892, when it reached a depth of 18 in. S on 7 days. R ·88 in. over the average. *W. Miller.*

KILLARNEY, WOODLAWN.—S 3 or 4 in. deep on 8th, which was increased to 8 or 10 in. on the 11th. *G. R. Wynne.*

CAHIR, DUNESKE.—S on 1st (3 in. deep) 3rd, 9th and 10th. *R. W. Smith, Junr.*

MILTOWN MALBAY.—The month opened with sharp frost, which ended about the middle with 5 successive days of S, the ground remaining covered for a week. *M. Molohan.*

NOTES ON THE SNOW FROM THE NEWSPAPER PRESS.

FRIDAY, FEBRUARY 2ND.

LONDON.—The snowfall played havoc with telephone and telegraph wires all over London, and at Islington dragged down with them a chimney stack to which they were fixed. Big Ben stopped at 1.30 a.m. on Saturday morning. The average depth in the outskirts was 4 inches.

KEMPTON PARK.—An average of 6 inches covered the race-course.

WEST SURREY.—Snowfall of 8 or 9 inches, and drifts.

WINDSOR AND ETON.—S 4 to 7 inches deep, and much more in drifts.

HATFIELD.—An engine was derailed by the S, and the tender thrown on its side.

NORTHAMPTON DISTRICT.—S from 8 to 12 inches deep in places.

PETERBOROUGH.—Drifts in the country round 4 ft. to 5 ft. deep.

BEDFORDSHIRE.—The worst S storm for years; S over a foot deep, and drifts to the tops of the hedges. The chalk cutting on the G.N.R. near Dunstable Downs was partially blocked, and the 6 a.m. train from Dunstable to Luton was unable to get through.

SWINDON.—S fell for 12 hours and reached a foot in depth.

LEICESTERSHIRE.—Newspaper trains were delayed several hours, and in Leicester tram and omnibus traffic was stopped.

WEDNESDAY, FEBRUARY 7TH.

BEAULY, AIRD AND BLACK ISLE DISTRICTS.—S 5 to 6 inches deep on the lower levels. Mail trains running with snow-ploughs.

DUNBEATH, N.B.—S fell steadily all day, making the depth on the ground fully 8 inches. The mail cart from Ord to Helmsdale could not proceed beyond Berriedale.

THURSO.—S fell all day. The roads, though heavy, remained open, and the trains were running nearly to time.

(*To be continued.*)

ROYAL METEOROLOGICAL SOCIETY.

THE monthly meeting of this Society was held on Wednesday evening, Feb. 21st, at the Institution of Civil Engineers, Gt. George Street, Westminster, Mr. R. Bentley, Vice-President, in the chair.

Mr. E. Mawley, F.R.H.S., read his report on the Phenological observations for last year, in which he showed that the weather for the year ending November, 1899, was chiefly remarkable for its high temperatures, scanty rainfall, and splendid record of sunshine. The winter and summer were singularly warm seasons, while the autumn was also warm, but during the three spring months rather low temperatures prevailed. In the early part of the flowering season wild plants came into blossom in advance of their mean dates, but after March they were mostly late in coming into bloom. Taking the country as a whole, the best farm crop of the year was wheat, the yield of barley proved also good, while oats were slightly under average. The crops mostly affected by the dry weather were those of hay and turnips, the latter being in most districts exceptionally poor. The only part of the British Isles where the summer drought was not severely felt was in Ireland, throughout a great part of which there was abundant keep in the pastures during the whole summer. The year was a very bad one for fruit. The yield of apples, pears, plums and strawberries varied greatly in different localities, but was in most of them much under average.

Dr. R. H. Scott, F.R.S., read a paper giving the results of the percolation experiments which have been carried on at Rothamsted by Sir J. B. Lawes and Sir J. H. Gilbert, from September, 1870, to August, 1899. Three gauges were used, with 20 inches, 40 inches and 60 inches depth of soil respectively; the area of each gauge being one-thousandth of an acre. The amount of water collected at the depth of 40 inches is always in excess of that collected at 20 inches, and also of that collected at 60 inches. In the winter months more than half the amount of rain penetrates into the soil and is available for springs, while in summer this amount only reaches a quarter that of the rain.

The Society will attain its jubilee on Tuesday, April 3rd, when it is proposed to observe the 50th anniversary in a special manner. The Council have arranged for a commemoration meeting to be held at 3 p.m. at the Institution of Civil Engineers, at which the President will deliver an address, and delegates from other societies will be received. In the evening a conversazione will be held at the Royal Institute of Painters in Water Colours. On the following day, April 4th, the Fellows will visit the Royal Observatory, Greenwich, and in the evening will dine together at the Westminster Palace Hotel. In view of this jubilee celebration, Mr. G. J. Symons, F.R.S., was elected President at the annual meeting of the Society on January 17th, but owing to illness he was obliged to resign this office. Under these circumstances the Council at their last meeting appointed Dr. C. Theodore Williams as the President of the Society.

SUPPLEMENTARY TABLE OF RAINFALL, FEBRUARY, 1900.

Div	STATION.	Total Rain.	Div.	STATION.	Total Rain.
		in.			in.
I.	Uxbridge, Harefield Pk..	3·69	XI.	Builth, Abergwesyn Vic.	6·11
II.	Dorking, Abinger Hall .	6·44	,,	Rhayader, Nantgwillt ...	5·96
,,	Birchington, Thor	4·54	,,	Lake Vyrnwy	5·75
,,	Hailsham	5·17	,,	Corwen, Rhug	5·19
,,	Ryde, Thornbrough	5·56	,,	Criccieth, Talarvor	3·52
,,	Emsworth, Redlands ...	4·92	,,	I. of Anglesey, Lligwy..	4·05
,,	Alton, Ashdell	6·34	,,	I. of Man, Douglas	4·25
III.	Oxford, Magdalen Coll..	4·49	XII.	Stoneykirk, Ardwell Ho.	2·98
,,	Banbury, Bloxham	4·52	,,	New Galloway, Glenlee	5·28
,,	Northampton, Sedgebrook	4·75	,,	Moniaive, Maxwelton Ho.	4·81
,,	Alconbury	3·29	,,	Lilliesleaf, Riddell	4·48
,,	Wisbech, Bank House...	3·70	XIII.	N. Esk Res. [Penicuick]	4·45
IV.	Southend	3·54	XIV.	Glasgow, Queen's Park..	2·68
,,	Colchester, Lexden	2·81	XV.	Inverary, Newtown	3·64
,,	Saffron Waldon, Newport	5·53	,,	Ballachulish, Ardsheal...	3·95
,,	Rendlesham Hall	3·74	,,	Islay	4·63
,,	Scole Rectory	2:35	XVI.	Dollar.....	3·37
,,	Swaffham	3·83	,,	Balquhidder, Stronvar...	4·66
V.	Salisbury, Alderbury ...	4·65	,,	Coupar Angus Station...	3·57
,,	Bishop's Cannings	4·70	,,	Blair Atholl	2·07
,,	Blandford, Whatcombe .	6·16	XVII.	Keith H.R.S.....	1·49
,,	Ashburton, Holne Vic...	8·36	,,	Forres H.R.S.	2·95
,,	Okehampton, Oaklands.	7·66	XVIII.	Fearn, Lower Pitkerrie..	...
,,	Hartland Abbey	6·88	,,	S. Uist, Askernish	...
,,	Lynton, Glenthorne ...	8·36	,,	Invergarry.....	1·30
,,	Probus, Lamellyn	6·47	,,	Aviemore, Alvie Manse.	1·40
,,	Wellington, The Avenue	4·20	,,	Loch Ness, Drumnadrochit	1·41
,,	North Cadbury Rectory	4·29	XIX.	Invershin	1·28
VI.	Clifton, Pembroke Road	6·40	,,	Durness.....	2·21
,,	Ross, The Graig	6·42	,,	Watten H.R.S.....	1·75
,,	Wem, Clive Vicarage ...	3·42	XX.	Dunmanway, Coolkelure	5·91
,,	Wolverhampton, Tettenhall	4·03	,,	Cork, Wellesley Terrace	4·36
,,	Cheadle, The Heath Ho.	3·84	,,	Killarney, Woodlawn ..	6·13
,,	Coventry, Priory Row ..	4·32	,,	Caher, Duneske	3·95
VII.	Market Overton	4·35	,,	Ballingarry, Hazelfort...	2·34
,,	Grantham, Stainby	4·85	,,	Limerick, Kilcornan ...	1·94
,,	Horncastle, Bucknall ...	3·16	,,	Miltown Malbay	3·32
,,	Worksop, Hodsck Priory	3·94	XXI.	Gorey, Courtown House	7·29
VIII.	Neston, Hinderton	3·60	,,	Moynalty, Westland ...	2·45
,,	Southport, Hesketh Park	3·00	,,	Athlone, Twyford	2·41
,,	Chatburn, Middlewood.	5·05	,,	Mullingar, Belvedere ...	2·34
,,	Duddon Val., Seathwaite Vic.	9·84	XXII.	Woodlawn	2·44
IX.	Melmerby, Baldersby ...	6·59	,,	Crossmolina, Enniscoe ..	...
,,	Scalby, Silverdale	...	,,	Collooney, Markree Obs.	3·43
,,	Ingleby Greenhow Vic..	5·48	XXIII.	Enniskillen, Model Sch.	3·04
,,	Middleton, Mickleton ...	3·78	,,	Warrenpoint.....	3·24
X.	Haltwhistle, Unthank H.	4·51	,,	Seaforde.....	4·18
,,	Bamburgh	5·99	,,	Belfast, Springfield	3·34
,,	Keswick, The Bank	6·54	,,	Bushmills, Dundarave..	2·83
XI.	Llanfrechfa Grange	9·31	,,	Stewartstown	3·30
,,	Llandovery	4·80	,,	Killybegs	2·90
,,	Castle Malgwyn	6·88	,,	Horn Head	4·18
,,	Brecknock, The Barracks	6·31			

FEBRUARY, 1900.

Div.		STATIONS. [The Roman numerals denote the division of the Annual Tables to which each station belongs.]	RAINFALL. Total Fall.	Difference from average 1880-9.	Greatest Fall in 24 hours. Dpth	Date	Days on which ·01 or more fell.	TEMPERATURE. Max. Deg.	Max. Date	Min. Deg.	Min. Date.	No. of Nights below 32°. In shade.	On grass.
			inches.	inches.	in.								
I.	ENGLAND.	London (Camden Square) ...	3·99	+ 2·11	·87	2	20	57·0	24	17·7	9	12	20
II.		Tenterden	5·57	+ 3·45	1·01	15	19	58·0	25	18·0	10	12	17
„		Hartley Wintney	5·85	...	1·67	2	19	56·0	26	8·0	9	18	20
III.		Hitchin	4·49	+ 2·74	1·07	15	16	57·0	23	14·0	7, 8	16	...
„		Winslow (Addington)	4·54	+ 2·38	·75	2	17	58·0	23	11·0	8, 9	17	20
IV.		Bury St. Edmunds (Westley)	2·60	+ 1·04	·52	15	19	52·0	25	20·0	8	...	...
„		Norwich (Brundall)	2·92	...	·63	15	19	57·0	24	18·4	13	12	19
V.		Winterbourne Steepleton ...	6·09	...	1·09	15	19	54·6	26	17·3	9	15	17
„		Torquay (Cary Green)	5·89	...	1·13	14	20	54·2	22	25·8	7	8	16
„		Polapit Tamar [Launceston]..	5·62	+ 2·35	1·04	14	19	55·4	25	16·1	9	15	16
VI.		Stroud (Upfield)	6·82	+ 4·26	1·04	19	20	55·0	23	22·0	8	16	...
„		ChurchStretton(Woolstaston)	3·69	+ 1·24	·53	26	23	54·5	24	18·0	8	18	23
„		Worcester (Diglis Lock)	4·49	+ 2·52	1·11	15	22	...	...	...	...	...	...
VII.		Boston	4·04	+ 2·36	·63	19	16	55·0	23*c*	15·0	13	18	20
„		Hesley Hall [Tickhill].....	3·54	+ 2·04	·80	15	18	55·0	23	17·0	8*e*	17	...
„		Breadsall Priory	4·04	...	·57	24	18	...	...	...	...	...	...
VIII.		Manchester(PlymouthGrove)	2·77	+ ·72	·93	10	15	57·0	24	14·0	11	16	18
IX.		Wetherby (Ribston Hall) ...	5·76	+ 4·18	1·30	26	19	...	...	...	...	...	...
„		Skipton (Arncliffe)	7·13	+ 2·44	1·22	16*a*	19	...	...	...	...	...	...
„		Hull (Pearson Park).	3·40	+ 1·60	·71	15	19	57·0	23	18·0	8	20	22
X.		Newcastle (Town Moor)	5·43	+ 4·03	1·40	26	20	...	...	...	...	...	...
„		Borrowdale (Seathwaite).....	8·30	— 4·34	2·02	15	18	...	...	...	...	...	...
XI.	WALES.	Cardiff (Ely).....	6·19	+ 3·00	1·00	18	22	...	...	...	...	...	...
„		Haverfordwest	6·33	+ 2·21	1·31	14	22	53·4	23	19·3	8	13	17
„		Aberystwith (Gogerddan) ...	2·96	— ·30	·50	13*b*	14	53·0	22	10·0	7	18	...
„		Llandudno.....	3·67	+ 1·75	·92	15	17	54·8	23	26·5	7	11	..
XII.	SCOTLAND.	Cargen [Dumfries]	5·65	+ 2·00	1·15	9	14	49·0	23*d*	5·0	12	19	...
XIII.		Edinburgh (Blacket Place)...	3·57	...	1·28	19	12	52·7	24	17·0	8	18	26
XIV.		Colmonell	4·40	...	1·46	15	16	53·0	25	9·0	10	...	...
XV.		Tighnabruaich	4·24	...	1·68	15	13	45·0	24	19·0	9	20	...
„		Mull (Quinish).....	4·24	— 1·23	1·04	15	17	...	...	...	...	...	...
XVI.		Loch Leven Sluices	4·00	+ 1·25	1·40	23	8	...	...	...	...	...	...
„		Dundee (Eastern Necropolis)	2·90	+ ·80	·55	15	17	50·2	25	17·4	12	23	...
XVII.		Braemar	3·73	+ ·37	1·50	15	16	46·3	25	—2·8	11	25	27
„		Aberdeen (Cranford)	5·22	...	1·41	19	22	55·0	24	11·0	8	19	...
„		Cawdor (Budgate)	1·47	— ·76	·31	27	13	...	...	...	...	...	...
XVIII		Strathconan [Beauly]	2·45	— 2·26	·72	17	8	..	...	...	...	...	...
„		Glencarron Lodge.....	2·31	...	·28	16	17	49·0	24	10·5	10	22	...
XIX.		Dunrobin	1·19	— ·90	·38	19	10	49·0	24	17·0	8	...	29
„		S. Ronaldshay (Roeberry) ...	2·47	— ·17	1·09	15	20	49·0	25	20·0	6	18	...
XX.	IRELAND.	Darrynane Abbey.....	3·07	...	·48	15*b*	20	...	...	...	...	...	...
„		Waterford (Brook Lodge) ...	5·34	+ 1·26	1·06	14	16	54·0	24	8·0	12	...	...
„		Broadford (Hurdlestown) ...	...	...	...	...	...	...	...	...	...	...	...
XXI.		Carlow (Browne's Hill)	2·94	— ·14	·70	18	19	...	...	...	...	...	...
„		Dublin (FitzWilliam Square)	3·16	+ ·81	·54	26	23	55·9	24	21·7	8	12	21
XXII.		Ballinasloe	2·52	— ·26	·40	14	15	51·0	22	15·0	12	17	...
„		Clifden (Kylemore)	4·83	...	1·17	21	13	...	...	...	...	...	...
XXIII		Waringstown	2·78	+ ·33	·46	21	12	50·0	25	12·0	13	9	15
„		Londonderry (Creggan Res.).	2·54	— ·49	·65	15	23	...	...	...	...	...	...
„		Omagh (Edenfel)	2·49	— ·20	·77	15	18	50·0	23*d*	15·0	7	19	24

+ Shows that the fall was above the average ; — that it was below it.

a—and 22. *b*—and 18. *c*—and 25. *d*—and 24. *e*—and 12, 13.

METEOROLOGICAL NOTES ON FEBRUARY, 1900.

ABBREVIATIONS.—Bar. for Barometer; Ther. for Thermometer; Max. for Maximum; Min. for Minimum; T for Thunder; L for Lightning; TS for Thunderstorm; R for Rain; H for Hail; S for Snow.

ENGLAND.

LONDON, CAMDEN SQUARE.—The wettest February for more than 40 years, the total R being 2·38 in. (or 148 per cent.) more than the average of that period. The next wettest February was in 1879 with a fall of 3·77 in. The max. fall, ·87 in. on 2nd, is also unprecedented the next largest being ·76 in. in 1879. R fell on 20 days but this number has been exceeded by 24 in February, 1879 and 22 in February, 1893. The 16 consecutive days, 13th to 28th, were all wet with a total of 2·77 in., the next longest wet period in February being 10 days in 1880 with 1·40 in. of R.

TENTERDEN.—The wettest February in 37 years, 1866 with 4·06 in. and 1879 with 4·21 in. being the only others with more than 4·00 in., though 1883 and 1893 had nearly as much. Much S on 2nd, 10th and 13th, but it mostly melted as it fell or soon after. The second week was very cold and the last week warm. Duration of sunshine 72 hours 30 mins. Gales from N.N.W. on 11th, N. on 14th, S.S.E. on 15th, W. on 16th and S.W. on 19th. Fog on 3rd and 4th.

HARTLEY WINTNEY.—A veritable February "fill-dyke" with R every day except from 4th to 13th, during which period the most intense frost was recorded, the min. temp. being as low as 0°·3 on 9th. The rainfall is 4·10 in. above the average and exceeds all previous records. More S fell than in any other month recorded. For the first four days the max. and min. temps. varied only 4°, with a keen E. wind. The honey bee was out on 25th and the Brimstone butterfly on wing on 26th.

HITCHIN.—The wettest February recorded in 40 years. S on 2nd, 13th and 15th.

WINSLOW, ADDINGTON.—A cold wet month, the wettest February in 30 years. Very large floods on 16th and 17th and again on 27th. Intense frost from 7th to 9th and on 12th and 13th. S seven inches deep on 3rd and nine inches on 14th. Dense fog on 13th.

BURY ST. EDMUNDS, WESTLEY.—Cold and wintry to the 16th with much S on seven days.

NORWICH, BRUNDALL.—An exceedingly damp, gloomy and unpleasant month. Heavy S storms, gales and severe frosts about the middle of the month. During both the cold and the mild periods a general excess of humidity prevailed. Fog on 26th.

WINTERBOURNE STEEPLETON.—The early part was cold; the mean temp. of the week ending 10th being 30°·8 only, whereas that of the month was 41°·3. S and much R about the middle of the month. The springs were very high all down the valley and they broke in places much higher than usual. S on five days and fog on four.

TORQUAY, CARY GREEN.—R 3·22 in. above the average. Mean temp. 41°·1, or 2°·3 below the average. Duration of sunshine 81 hours 25 mins. being 1 hour 35 mins. above the average; 9 sunless days. Ozone mean 5·3 the greatest being 8·5 on 20th and 23rd with S. and W. winds, and the least 0·5 on 8th, 13th and 14th with N. or E. winds.

POLAPIT TAMAR [LAUNCESTON].—The largest amount of R for February since 1883. Frosts every night for the first fortnight. A heavy fall of S on the afternoon and during the night of 13th, there being five-and-a-half inches of S on the ground on the following morning. S also on 2nd, 10th and 11th. S. gale on 15th and heavy floods. Heavy T on 17th.

STROUD, UPFIELD.—About one inch of S on 1st and two inches on 2nd. On 13th S fell in the afternoon and night to a depth of about ten inches, and in the morning little snowballs were to be seen all over the lawn and field so lightly made that they collapsed and sank into the S about midday.

CHURCH STRETTON, WOOLSTASTON.—A severe winter month. S fell on 11 days. The river Severn and many brooks were frozen over on 8th. Violent gales on 10th and 14th. Mean temp. 40·8.

BOSTON.—During 13 days there was an average daily fall of ·23 in. of R, which is equal to that of any of the 21 great floods that have occurred in the fens during the last half century, except those in 1880, 1883 and 1885. S on 4 days.

ARNCLIFFE VICARAGE.—A very wild and snowy month but drifts were not quite so large as in March, 1886.

NEWCASTLE, TOWN MOOR.—The greatest monthly fall since October, 1896, when 5·68 in. fell.

WALES.

HAVERFORDWEST.—The first half was cold with more or less S on the ground nearly every day and sharp frosts at night, but with a strong tendency to thaw during the day. On 13th a heavy fall of S took place followed on 14th by a rapid thaw and at 5.30 a.m. on the next day a strong gale sprang up lasting all day and accompanied by heavy R. From 15th to the end it was generally mild and damp. Gales on 6 days; not much fog. Agricultural operations backward.

ABERYSTWITH, GOGERDDAN.—A cold sunless month. A little S on 9th, 10th and 11th, three inches in all.

SCOTLAND.

EDINBURGH, BLACKET PLACE.—Mean temp. 4°·2 below, and rainfall nearly double, the average. S on 11 days. S.E. gale on 15th.

COLMONELL.—R ·63 in. above, and temp. 3°·0 below, the average of 24 years. S on 10 days; on 9th six-and-a-half inches fell in less than three hours.

TIGHNABRUAICH, CRAIGANDARAICH.—A cold wintry month.

ABERDEEN, CRANFORD.—Cold and wet with high wind. Gales on six days.

S. RONALDSHAY, ROEBERRY.—A very coarse cold month. Mean temp. 33°·8 or 4°·7 below the average of ten years.

IRELAND.

DARRYNANE ABBEY.—Rather dry, but with many days of small rainfall. About one inch of S on 9th, slight S showers on 10th, 11th and 12th.

DUBLIN, FITZWILLIAM SQUARE.—Not since 1895 has so severe a February been experienced. The mean temp. 37°·9 was 4°·9 below the average and below that of January. During the first half S or H fell almost daily, often in large quantities and the ground was more or less covered with S on 10 days. High winds on 9 days, reaching the force of a gale on 3 days. Fog on 6 days, S on 13 and H on 9.

OMAGH, EDENFEL.—A month of two quite distinct characteristics. Till the 14th a dry hard frost prevailed with little or no S and temp. lower than since February, 1895. During the remaining 14 days there were rains bringing up the monthly fall to the average, accompanied by higher day temp. but there were only four nights without frost on the grass.

PRESENTATION TO DR. R. H. SCOTT.

AT the Meteorological Office, on February 26th, Mr. Robert H. Scott, M.A., D.Sc., F.R.S., who is retiring after many years' service, was presented by the staff of the office with a massive silver bowl, bearing a suitable inscription. The presentation was made by Captain Toynbee, late Marine Superintendent, who entered the service of the Meteorological Council on the same day as Mr. Scott, thirty-three years ago.